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| 09/667,981      | 09/22/2000  | George A. Burnett    | 2909                | 1090             |

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EXAMINER

LEE, BENJAMIN C

ART UNIT

PAPER NUMBER

2632

DATE MAILED: 08/18/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/667,981

Applicant(s)

BURNETT ET AL.

Examiner

Benjamin C. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \*   c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Response To Filing Of Appeal Brief**

1. Appeal Brief filed 6/5/03 has been acknowledged. Further consideration of the previous Office action along with Applicant's comments in the Appeal Brief has resulted in the withdrawal of the Final Rejection mailed 9/5/02, and the application of new grounds in following rejection.

### ***Claim Rejections - 35 USC § 103***

2. **Claims 1, 6-7, 9-11 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Burnett (US pat. #5,675,312) in view of Leitten et al. (US pat. #5,420,570).

1) In considering claim 1, Burnett disclosed:

a) claimed noise making device (Figs. 1-2) comprising: a piezoelectric transducer (34); a sound amplifying housing adjacent the transducer and enclosing a space communicating with the transducer for receiving sound waves from the transducer, the sound amplifying housing further having a front face (Fig. 2);

except:

b) the claimed water resistant, sound permeable barrier adjacent to said front face.

Burnett disclosed that the noise-maker is intended for use in harsh environments such as in heavy construction equipment and farm implements (col. 1, lines 12-27). In the same art of piezoelectric noise makers, Leitten et al. teaches a piezoelectric noise maker intended for use in an environment where the device can benefit from making the device water-resistance, wherein a

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water resistant, sound permeable barrier is used adjacent to the front face of a sound amplifying housing in front of a piezoelectric transducer (col. 6, lines 19-40 and Figs. 1-4). In view of the teachings by Burnett and Leitten et al., it would have been obvious to one of ordinary skill in the art at the time of the claimed invention that the intended use harsh environments for a noise maker such as taught by Burnett would have the possibility of being subjected to environmental factors such as moisture, rain or water that would have detrimental effect on the noise maker, such that a known water-resistant, sound permeable barrier can be placed adjacent to the device front face such as taught by Leitten et al. to help prevent such water/moisture environmental factor related detrimental effect on the device so that the device would be operated in a reliable, affective and intended manner.

2) In considering claim 6, Burnett and Leitten et al. made obvious all of the claimed subject matter as in the consideration of claim 1, except:

--specifying the claimed water resistant, hydrophobic fastener mating with said sound amplifying housing.

However, Burnett's sound amplifying housing includes a threaded exterior wall portion (Fig. 2) that is inherently adapted for mating with a solid fastener proximal the area of the front face grill (where the water resistant and sound permeable barrier is located in the device taught by Burnett and Leitten et al.). Since the device taught by Burnett and Leitten et al. expects the possibility of water/moisture presence at and prevents water entry through the front face, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to ensure that the material used for the mating fastener that is situated proximal at such front face location is water resistant and hydrophobic.

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3) In considering claim 7, Burnett and Leitten et al. made obvious all of the claimed subject matter as in 6, except:

--the claimed said water resistant and sound permeable barrier is integrally attached to said water resistant hydrophobic fastener.

However, since the purpose of the barrier is to prevent water/moisture from entering the noise maker housing through the front face, and since the mating fastener is attached to the front face around the front face through which such possible water/moisture may pass in the device taught by Burnett and Leitten et al., it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to alternatively or additionally apply the barrier for the prevention of water/moisture entrance at the fastener such as by integration attachment.

4) In considering claim 9, Burnett and Leitten et al. made obvious all of the claimed subject matter as in claim 6, wherein:

--the claimed said water resistant hydrophobic fastener threadingly engages said sound amplifying housing is met by the threaded mating considered in claim 6 above.

5) In considering claims 10-11, Burnett and Leitten et al. made obvious all of the claimed subject matter as in claim 6, including:

--the claimed wherein the front face of said sound amplifying housing includes at least one aperture or comprises a grill (Fig. 2 of Burnett, and col. 6, lines 19-40 of Leitten et al.).

6) In considering claim 13, Burnett and Leitten et al. made obvious all of the claimed subject matter as in the consideration of claim 1.

3. **Claims 2-5, 8 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Burnett in view of Leitten et al. and Lee (US pat. #5,707,757).

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1) In considering claim 2, Burnett and Leitten et al. made obvious all of the claimed subject matter as in claim 1, wherein:

Leitten et al. disclosed that the water resistant, sound permeable barrier is constructed of a material under the trade name "GORTEx" (col. 6, line 39), while Lee disclosed that "GORTEx" is constructed of polytetrafluoroethylene (col. 4, lines 17-21).

2) In considering claims 3-5, Burnett and Leitten et al. made obvious all of the claimed subject matter as in claim 1, plus the consideration of claim 2 in view of Lee, wherein:

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention that various attachment techniques known in the art of attaching two materials together, including by a sonic weld, hot melt, or silicon adhesive, can be used for attaching the barrier to the front face of the noise maker in a device such as taught by Burnett, Leitten et al. and Lee without unexpected results.

3) In considering claim 8, Burnett and Leitten et al. made obvious all of the claimed subject matter as in claim 6, plus the consideration of claim 2 in view of Lee.

4) In considering claim 12, Burnett and Leitten et al. made obvious all of the claimed subject matter as in claim 6, except:

--the claimed wherein the front face of said sound amplifying housing is constructed of polytetrafluoroethylene.

Leitten et al. also suggested that the front face of the noise maker device housing can be made of a water resistant, sound permeable material that also prevents particles from falling into the device, which can be constructed of a material under the trade name "GORTEx" (col. 6, lines 28-40) that Lee disclosed as polytetrafluoroethylene (col. 4, lines 17-21). In view of the

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teachings by Burnett, Leitten et al. and Lee, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to construct the front face of a noise maker device such as taught by Burnett using polytetrafluoroethylene such as taught by Leitten et al. and Lee in order to promote water-resistance and preventing particles falling into the device interior while allowing sound output to permeate to the exterior.

### *Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Altilio, US pat. #5,898,363

--A known use of water resistant sound permeable membrane around noise maker (col. 5, lines 44-53).

2) Knight et al., US pat. #6,545,594

--A known use of hydrophobic membrane on a piezoelectric speaker (col. 2, lines 14-23 and col. 6, lines 27-39).


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin C. Lee whose telephone number is (703) 306-4223.

The examiner can normally be reached on Mon -Fri 11:00Am-7:30Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (703) 308-6730. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8576.

  
Benjamin C. Lee  
Primary Examiner  
Art Unit 2632

B.L.